CAC Minutes
September 19, 2002
Utah Department of Environmental Quality
168 North 1950 West
Second Building
Salt Lake City, UT 84119

Members present:	Members Excused:
Debbie Kim, Chair (DK)	Jane Bowman
Rosemary Holt (RH)	Gary Griffith
Geoff Silcox (GS)	
Dan Bauer (DB)	
Gene White (GW)	
Beverly White (BW)	
Sid Hullinger (SH)	
David Ostler (DO)	
John Bennett (JB)	
Dennis Downs (DD)	
Michael Keene (MK)	

1. Minutes – Approved with changes. Motion made by Dan Bauer, second by David Ostler. All in favor.

2. Stockpile Report – Col. Peter Cooper
   The annual stockpile emergency preparedness exercise was held during the week of September 19. This was a very successful exercise. This is an external evaluation that is done each year. The State of Utah, Tooele City and Tooele County work very well together. Very successful in learning things that need to be improved upon.
   There were four leakers all four leakers were HD leakers, 155MM, two vapor, two liquid. Slides were distributed in packet. Ultrasound testing is continuing on the mustard ton containers, characterizing the agent for eventual destruction. We are looking for solids in that operation. Future operations that we are getting ready to do is the ACWA program, the alternative technology, washing out the projectiles. We are sampling 212 mustard tons for characterization for destruction.
   a. Status of the Security Breach at Deseret Chemical Depot (DCD)
      The incident on September 5, 2002 was not as significant of an issue as it came out to be. It grew due to media. Specifics about security will not be discussed. As you get closer to the munitions, security gets tighter. There is a point on the depot, "a line in the sand" that nobody crosses. If the line is crossed, the use of deadly force is authorized; all precautions are taken to protect the stockpile. There is an area between the depot, between the line and the outside fence line that is called the security area, or an observation area. The observation area is where the military looks for people that are not authorized to be there, it is on the military property, but at that point, the person is not a threat to the Depot. There was an individual in this area. At 9:15 there was notification of the intruder in the fence line called "Cemetery Hill".

Four separate soldiers saw the individual on the Depot property, dressed in black. When this person was seen on the hill, they were not a threat at that point. Rules of engagement are to approach the individual and find out why they are where they are not supposed to be. When he was approached, he ran off the opposite side of the hill, at that point, it becomes an unknown, then at that point, they are to be treated as a possible hostile element. At that point, the military changes their mode of operation, military tactics are now in place. They approach a little slower and play a little safer. At that point, the individual went down off the hill and into the gully and was not found. At that time, we did not know what the threat was on the depot. We took the maximum measures and sounded the "Anti Terrorist Force Protection" alert system. That is a siren that notifies the employees at the Depot that there may be a possible threat. When the alarm is sounded we want the employees to do three things: 1. Go inside a building, 2. Get away from windows 3. Contact supervisor. That allows us to get accountability of the depot workers, and off the streets so they are not in harms way. The individual was looked for most of the day, there was a lot of support from the State and the county. The State provided a helicopter and dogs, which was arranged from the Tooele County EOC. At that point, was when began to get calls from the media, a press release was sent out, indicating that an unauthorized person was being looked for. In the press release, it was indicated that we did sound the Anti Terrorist alert system. That caused it to go national. During this time, an unauthorized flyover happened, that is another situation that is being dealt with. This was not media. It entered into the Restricted Flight Zone. It is not known who it was. It happens periodically here, possibly six or seven times since September 11, 2001. It happens quite frequently at other chemical depots. We activated the JIC (Joint Information Center) once we knew the media became interested in what was happening and then we did sweep the entire depot looking for this individual, we could not find him, so we cleared the depot by putting soldiers on the ground walking every inch of the depot looking for this individual. (Photographs of Cemetery Hill were provided to show where the individual was spotted.) Some the most common questions asked were How did he get in and How did he get on? The answer is that this is an observation area. The boundary fence of the depot is a 4 or five strand fence six or seven feet high of barbwire with two feet of mesh. It is designed to be a demarcation line, a property line, between federal property and other property. It is not designed to be a security fence. It is not difficult to get into the observation area. This individual did not get within 1.3 km of the depot. How did he get out? If you are on Cemetery Ridge, Ophir Creek runs along the bottom of that ridge, when he dropped on the opposite side of the hill, he was headed southeast, so he went in to Ophir Creek in the middle of the Depot. We thought he was heading west, when we began looking for him we started at the Center of the depot and worked west. What is now to be believed is that he hit the Ophir creek and headed east. Two sightings that are not confirmed to be linked, but a sighting at 4 a.m. of an individual dressed in black on Ophir Creek by Tooele City residents, reported to the Sheriff. Another report that on the fields between the depot and Hwy 73 about 11:00 someone dressed similarly got into a white vehicle and left. This occurred, if linked, this could be the individual.

Q-DB-What security level is the depot at now?

A-FPCon Charlie. The chemical limited area is at Delta Plus

Q-SH-What kind of security do you have around the igloos, Area 10?

A-I do not wish to answer that question, but it is more that barbwire and will stop more than a person.

Q-RH-You mentioned that small aircraft entered into the restricted fly zone, how much information do the small aircraft really have, is it on the aerial maps?

A-It is on the internet and when a flight plan is filed. The problem is that most small aircraft do not file a flight plan. The FAA has the information posted. Consequently, they do not see the restricted flight zone. A media campaign to put flyers up in the small airports and to notify pilots as much as possible and that has worked. The reason I know it has worked is because of the limited number of flyovers. Anniston for example has had hundreds of flyovers. We take up a five mile TFR and must fly cautiously. Planes fly correctly all the time.

Q-RH Is there an altitude limit?

A-Yes, the altitude limit is 8000 feet and basically at the mountain top height. Anything above the mountain is not violating the TFR

Comment-DO-It is reassuring to know that everything worked because this could be a very scary situation.

Q-MK- Would Hill Air force Base be notified in this type of situation? Is helicopter support available?

A-When dealing with an over flight, we notify NORAD and the FAA. NORAD is the organization is who would vector in any aircraft. Yes, if there was an identifiable threat, Hill or whomever is up there would be notified. This incident is referring to a ground search. Yes, we can get helicopter support from the Utah National Guard, but they are not full time, may not be flying that day and when superiors were notified back east it was amazing that help was so readily available.

Q-SH-Did the dogs pick up anything?

A-No. Partly because that is the day it rained. When the military spotted this individual, it was during the rainstorm. It was dark. The rain, I think, prevented us from finding him.

Comment-GW-One of the things that we went over very fast, about 9:24, Tooele County Officials were notified by the EOC after it was determined what the situation really was, we went ahead and activated the limited operation, which brings in all the staff that are involved, and throughout the whole period of time, we were in constant communication with representatives of the depot. All concerns were being passed on and were prepared to notify the citizens if necessary. When the JIC was activated it was very helpful.

3. Program Status - Monte Caldwell - handout was provided. See handout for information.

Overview of Aberdeen, Anniston, Blue Grass, Johnston Atoll, Newport, Pine Bluff, Pueblo and Umatilla.

At Umatilla, an incident occurred with a vial. A vial of diluted solution, which is at drinking water standard, an employee mistakenly left in his pocket at took home. The substance is not hazardous, but is a controlled substance.

Q-DK Have they put any kind of measures in place to not have this happen again? (regarding the vial incident)
A-Yes, we reviewed our procedures to make sure this would not happen here. They actually have agent accountability and in this situation, the employee realized he had when he got home and at the exact same time, it was discovered that the vial was missing, he was back quickly. They violated the procedures. Our procedures are every person that gets this material, one has to have signature authority to keep it, it has to be controlled by being carried in a box, inventoried at the end of shift.
Q-DK-Basically, he went home with out the count being done?
A-Right. I don't know all the details exactly. Our accountability is handled before a shift is over.

a. July employee exposure and planned corrective measures - Ted Ryba - handout provided.

The July 15 incident is part of the overall presentation that was given. This presentation is about the safety improvement program that has been installed at TOCDF. This safety improvement program was started months before the incident occurred. The background of the program, information about the incident, what EG & G is doing and what the PMCD field office is doing.

In regards to the incident in July, two maintenance workers were working in the Liquid Incinerator #2 Primary Chamber room. This is an area which is part of the cascade ventilation system is under engineering controls. The maintenance workers performed this job wearing level E protective clothing and industrial respirators. Level E protective clothing is coveralls, leather gloves and self provided safety shoes. the respirators included a carbon canister. The job was to replace an air regulator valve on an air purge line. The air purge line is used to purge any residual agent which is fed into the liquid incinerators fed back into the furnace following a stop feed. this line is not typically designed to have agent in it. While they were working on the line, the ACAMs monitoring the room alarmed at 96.3 time weighted average. They immediately evacuated the room they were working in and went into the secondary chamber room adjacent to where they were working. both workers were monitored out of the secondary chamber room and proceeded to the medical module, the decontamination vestibule of the medical module. Upon arrival, they were monitored again, and found signs of agent contamination upon themselves. At that point, they re-masked and went through the decontamination process. After the decontamination process, one worker was released, showed no visible signs of agent exposure and his blood draw showed no depression. The second worker did show one symptom of agent exposure, that being pinpoint pupils, or myosis, he exhibited a greater than a 25% depression of his red blood cell cholinesterase. Both workers were monitored for some period of time to make sure they were okay and were released that evening. Both workers were cleared to return to work the following day, although the worker with the confirmed exposure was limited to working outside of the toxic areas. Following the incident, there was further testing throughout all the areas where the individuals had been except for the primary chamber room all areas were found to be free of agent contamination. Following the event, the army and EG& G fielded investigation teams and the army report is still pending release.
Q-DO-Did both check valves fail?

A-Essentially, both the check valves were bypassed and the tight shutoff valve that was within that line. It appears that the ball valve was breeched as well through normal processing, or through some course of time.
Q-DB-What is the purge air line made out of?
A-Mild steel. Same with the check valves
Q-DK-How similar or different from the incident that occurred earlier this year (January)
A-There was an incident in January, the differences were that we were still in agent operations, the plant was still considered hot. At this point, we had decontaminated the facility to a ventilated 3x status in January there was awareness that the lines were hot, agent flowing, here that may not have been the case. The other difference, in January, there was actual agent seen leaking from the pressure regulator in question here on LIC 1. Since we were in operations and since there was liquid agent directly involved, that replacement action was conducted in PPE protective clothing. This incident was used with a respirator.
Comment-the check valve is always designed to allow flow in one direction.
A-Looking ahead the design of the valves is being looked at, the critical issues, why were the valves installed there? Check valves should have 100% back flow prevention, that isn't necessarily the case we are finding. I can't tell you all details because I don't know them, but we are finding that in the design basis and the valves

Q-GS-Were the valves not functioning or have they been bypassed?
A-There were no bypasses in the line. At this point, we have not gone back in to look at those valves (LIC 2) that is part of the pre-startup plan. In LIC 1 we did find that the valves had built up some debris that prevented them from closing and caused leaking.
Q-DK-Have those been changed? The ones with buildup?
A-Yes.
Q-DB-The industrial respirators, were they half face or full face
A-Full face, carbon canister which is approved by the army for low level agent protection. We did breech that with the level that we reached.
Q-DB-Do you think the exposure was through inhalation?
A-The exposure route may have occurred when they were changing the respirator for their M40 protective mask. There may have been some material on one of the individuals gloves, somehow through that process may have gotten it on his body or possibly through the mask seal.
Q-DK-At what point to they go to the protective mask?
A-When they left the LIC primary room, they got into the secondary room and at that point, is when the mask was exchanged. The primary action was to evacuate and then to don their M40 protective mask.
Q-GS-You mentioned that the ball valve was open, do you know why it was open?
A-It is a tight shut off valve, it is a ball valve, one of the things we are looking for is why this particular design was chosen because of the nature of those check valves had been breeched, and if that tight shut off was your final line, even in normal functioning there is the potential for backing material up beyond that. That is the nature of what we are looking at.

Questions from the public were held until the presentation was complete.

A part of enhancing awareness of the level of the people being decontaminated, are looking for signs, what kinds of questions to ask so we have a better awareness of what is happening without having the medical staff in their directly.

Q-SH-Haven't they already been trained in that? That isn't something new?
A-This is an enhancement, the people who did respond were trying their best to do what the training involved. When you are looking through two sets of lenses trying to see how a persons pupils are looking, that may not be the best thing to look for even though that is correct and what is in the training has dictated. But to continue to talk to them and listening and watching other aspects of what the person is doing is what has been added to that regimen now.
Q-For example, what else would you do?
A-The biggest thing is to continue to talk and listen to the response to see if there is confusion, stress or trauma to determine their state of mind.

Q-SH-Please expand on disciplined operations
A-This is basically the conduct of operations that I am referring too. It is a five part process which includes defining the work scope identifying the hazards protecting against the hazards by wearing protective clothing, administrative controls etc. executing the tasks that you have and providing the feedback for future operations.
Q-SH-How is this different from the way you have conducted yourselves during the long campaign for GB?
A-The largest difference is providing the feedback. We have systems in place to capture what has happened and how to use that looking ahead we are looking at improving that. The planning stages and the hazard analysis, we have practices and procedures in place for those. Including employee involvement, directly involve those in the evolution those that supported the evolution. Things that were good, needed improvement, where the task lies as far as whether it needs to be completed or whether it is completed
Q-So they give the feedback, how do you know any body is going to do anything about it?
A-We are changing our way we do contract oversight. This is described in slide 7. Moving towards a performance based oversight more so that compliance oversight. Enhancing the lessons learned program to move the overall operations to the sight levels, for more efficiency and expedient.
Q-DK-On page 6, that medical enhancements include using softer brushes. That is directly opposite of what the civilian side of the community is taught in decontamination. They are taught not to use brushes because of potential abrasion of the skin and potential absorption. We use brushes for things not skin. Why is there disparity between the two?
A-I will have to get back to you on that, I do not know the reason for that discrepancy.
Comment-DK-This is consistent with the teaching that we got for the Olympics, we use washcloths or paper products to get the matter off. Brushes cause abrasion to the skin. The other thing is are you able at this time to provide us with any updates of how the individuals are doing? Any residual effects, signs symptoms etc.?
A-They are doing fine, one that had the depression is recovering the ChE is continuing to return to baseline. It is still depressed. We have made the decision, it is above the army threshold of 80% depression before they can go back into a toxic area. We have elected to keep him out of the work area until he is closer to the 100% baseline. He is at work working on some projects. He is doing well.

Q-DK-How about some of the medical conditions that you see with a vapor exposure, such as myosis, has he had trouble sleeping concentrating, that sort of thing?
A-He did have a little bit of insomnia and some headaches, but those are being treated by his physician.
Q-So he is getting some follow-up treatment?
A-Yes
Q-SH-How are you going to use the employee feedback?
A-We have already implemented some of the changes that both of the employees suggested. They are real time and in place in now. One of the employees have been used as a consultant to find out where there could be more positive changes. He has been reached out to and asked his opinion to do that.
Q-How does that go beyond what you already do?
A-After every entry, for example, the complete group that planned the maintenance, sits down and holds a post entry meeting. Part of that meeting is to get feed back from them and report that to supervisors, managers, safety people, environmental people. that is part of the mentoring program on how to use that information. During the VX changeover, we had a number of safety meetings where we expressed to the employees that we want safety related comments from them. The mentors are teaching them how to make them employees understand what you are doing with them.
Q-SH-How are you bridging any disconnects between management and the employees?
A-One of the things that we have done is that Sr. management has gone on shift. That allows for management to work directly with the employees at night, weekends, whenever. When not dealing with the day to day aspects of the job, time spent directly with the employees has increased and can get first hand feedback from them and are taking action on issues they raise, immediately and try to close them within that shift if possible or within 24 to 48 hours. By spending more time in the plant in the off hours has made all the difference. This is more first hand and taking the initiative to make the change, identify the unsafe condition, take action write the work order and see it through to completion and award them on those types of accomplishments. This system is more of a feedback system to make the planning system work better, make jobs easier and make the plant run smoother

The July 15 incident has served as a catalyst to move ahead with a number of programs that we already had in place. Once these actions are completed, we anticipate worker safety and public safety along with the environment.

Q-GW-Is there a reason PMCD did not have a specific representative during a CSEPP operation?
A-In planning for the exercises, PMCD was asked to play a specific role, but we are willing to work together to ensure safety for all. We did not participate because of any specific reason. If PMCD has a role, we do support it.
Q-JB-Part of this problem stems from the regulator valves and the check valves. What are you specifically doing to improve their performance?
A-I know that there is a review going on of looking at the system and its intended purposes and how to change that purpose if needed, how to better assure we have a clear understanding of agent boundary, where we should or should not anticipate agent to be present in what ever the design we put into place.
Q-Does that include the replacement of the valves with an enhanced valve?

A-I'll say yes without knowing the specifics, but if we need to change the valve or the sequence of the valves operation of the entire line, that will be looked at.
Q-GS-I just would like clarification as to what the purpose of the purge line is?
A-As an example, if we were feeding agent and we ran down agent feed, once the agent feed control valve closes that purge line would then open and push any residual agent into the furnace so there isn't any present in the agent gun going into the primary chamber.

Q-JG-Have you had problems with the agent line clogging or backing up? And is that a possible source of why agent is getting into the air purge line because it has nowhere to go other than back up the airline?
A-If the back pressure in that gun or any agent feed line would exceed back pressure of the air coming in there, there is the potential that you could have agent going into the purge line. The only difference is the agent down the agent feed system if the gun were to block the agent feed the agent automatically stops.
Q-Is that a possibility then? If there has been clogging, is it possibly gel agent?
A-No
Q-How do you know you have purged the line completely?
A-It is a two-part system; the length of pipe is measured in inches. Depending on the circumstances, there is an initial purge of air alone or prior to removing that agent gun assembly, there is a fuel oil flush followed by air.
Q-How do you know for sure the purge line is clear?
A-In this case you don't care because the purpose of the line is not to clean the line below a 3x standard.
Q-DK-s this going to be included as part of a preventative maintenance thing? We know there is trouble with these valves, and they allowed agent to go back up? Are they going to be replaced on a more regular basis? My concern is VX being persistent and of different characteristics, if some would gum up the valves and this could happen again.
A-PM schedule and actual PM have not been decided. But the general answer is yes, there will be some sort of check on the valves, at some frequency that has not been developed as of yet.
Q-JG-I am wondering if this problem will be fixed and the solution identified before the VX operations begin and if has been since January that there was a similar problem on the LIC line what is the estimated time to figure out what the problem is of the agent going into the air purge line?
A-The incident in January was corrected shortly afterwards this incident has not been closed yet because we have had restrictions on making entries into the toxic areas, but will be corrected prior to the start of operations.
Q-Is the EG&G report out yet? Is it finished?
A-No it has not been released, it is complete, not released.
Q-CK-Are you going to use the new standard for VX or the current standard?
A-The agent comments were not directed towards any standard, there were VX is much more persistent and more motor oil type of viscosity versus GB which is more water type operation rates. In no way in agent awareness that I was referring to was not in regards to the toxicity piece. That is not part of my presentation.
Q-Are you planning to teach some awareness about toxicity levels because hat could depend on when certain types of protective suits should be worn.

A-Yes and prior to this event part of the over all agent awareness program that was being taught were the differences of toxicity for monitoring of VX. We use the current adopted standards.
Q-Would you please explain how you intend to hold the contractor accountable for safety and performance?
A-Generally through the contract process
Q-Will there be any incentives to be paid?
A-There will be an award program that will be in place that provides incentives for all aspects of operation for the facility
Q-What kind of contractor accountability are you talking about?
A-Essentially if they are not meeting the requirements of the contract they will be held accountable and alternately in the awarding process.
Q-Would that mean that if the did something wrong in the permitting?
A-I am not going to speculate on hypotheticals

4. Plant Status-Mr. Tom Kurkjy. Handout provided
Still in changeover preparations. October 28th is current forecast for beginning operations.

Q-Please clarify what "spiking metals" means
A-Our metals in the agent are very low, so what we are doing introducing high metal concentration into the agent to raise the metal concentration in the feed and then we monitor it gas of the duct of the furnace to determine our global efficiency meets the requirements and also its evaluated against the health risk assessment and its parameters.
Q-DK-From the experience at JCADS, do you have any idea of about the kinds of problems we are likely to see in your ramping up process so they don't happen here?
A-We use lessons learned and implemented those during the actual execution of changeover. For the one area that will be processing here which we haven't before, will be VX mines, and we are incorporating lessons learned from JCADS. That was the last campaign they did. We will be installing mine equipment upon completion of the VX rocket campaign.

One Action Level 3 incident regarding the generators occurred on June 26, 2002. Egen 101 shut down due to a high coolant temperature alarm. Egen 102 started and accepted the load in about 90 seconds. 20 minutes after egen 102 shut down with same alarm. The power was restored before egen 104 could come on. No GB ACAMS alarms went off during this period. *EGen= emergency generator* This occurred during very warm weather and necessary precautions and maintenance have been taken to fix this problem.

Q-DK-Do you annually have these tested?
A-We are required to do a global loss of power in the plant every six months required by the permit.
Q-GS-Since it occurred in hot weather, would there be problems in cold weather, especially with the louvers wired open?
A-That is part of our corrective action. We are evaluating cold weather operations.
Q-MK-What would be the biggest safety concerns if loss of power happened and the back ups were to fail?

A-The concerns would be migration of agent outside of engineering controls. During this incident the plant was decontaminated therefore no alarms went off. We maintain negative pressure.

5. Report of task force initiative on waste neutralization-Dr. Michael Keene
A task force was not formed, but did go out to an ACWA meeting in July along with Cindy King. There are a number of promising technologies, but a fair amount of work to be done, but there are many steps to be taken to get to final stages. This is why they do not look at Tooele for the current campaign. For mustard agent, construction etc. for alternative technologies is not out of the question. I am supportive of a presentation by the ACWA people and coordinate with us for a visit and presentation and give us an overview of things.
Q-DO-What kind of cost are we looking at here?
A-Cindy King-The costs are determined on the amount of agent that has to be processed and the types of weaponry. That cost is site determined, I cannot give you a specific answer.
Agents that we have here are the same agents they have in Kentucky. Kentucky is using alternative technologies for GB, mustard and VX.
What are the costs, timetable to retrofit the facility are questions that could be given before a presentation is made by ACWA. They can do this because that is part of their requirements. The incineration process never went through the same processes what the technology has had to for the ACWA.

Dale Ormond - The National Academy of Science has provided oversight of this from day one and reviews the technology, looking at the work at CAMDS, going out to JCADS evaluating construction plans and operational data. There has been a tremendous amount of oversight independent of the army and the Dept. of Defense looking at the incineration process and determine it completeness its ability to accurately destroy and safely to comply with environmental standards

Cindy King-For the record, I did not say that it wasn't oversight. I am referring to the determination of technology.

Q-DO-I would like to know the capital cost to put it in place and operating costs, it seems to me you cannot retrofit an incinerator to neutralize, two different things. It seems to me the most dangerous part of this operation is in the unpack area.

MK-What caught my attention about the ACWA approach it is not relatively capital intensive. I make a motion to invite ACWA to a meeting for updates and developments
Second by Sid Hullinger. All in favor.

Information to Debbie Kim to invite ACWA.

7. Mr. Lorin Larsen was not on the agenda and was asked to speak. He is from the old Comprehensive Emergency Management, now the new agency. There have been changes in the CSEPP program in the Dept. of Health. Mr. Fowler has replaced Lloyd Baker as the CSEPP program medical coordinator. The annual CSEPP exercise was cancelled last year due to 9/11. We demonstrated using our new format called the Integrated Performance Evaluation format.

Used to have 15 objectives and now have bundled the naturally occurring functions together into seven streams. The exercise went well and improves each year.

Citizens Concerns

CK-When Tom was referring to the time of startup does that include the possibility of any outstanding permits that have not been approved yet? Will they be done prior to that start date?
Tom Kurky-That is correct, yes.
CK-I know of two permits that are outstanding, what is the timetable for that to be approved?
There is not a specific date

Roger Grenier, a citizen. He provided a handout with his comments.

Tours and invites of the Umatilla plant have been offered; therefore we will move the meeting up one week. Any commission member who wants to attend is more than welcome.

The next meeting will be held in Tooele beginning at 6:30 p.m on November 14, 2002.

Motion to adjourn by Beverly White
Second by Sid Hullinger
All in Favor
Meeting adjourned at 8:30 p.m.